ABSTRACT

A method for drilling in the floor of an ocean from a floating structure using a rotatable tubular includes a seal housing having a rotatable seal connected above a portion of a marine riser fixed to the floor of the ocean. The seal rotating with the rotating tubular allows the riser and seal housing to maintain a predetermined pressure in the system that is desirable in pressurized mud cap and reverse circulation drilling. A flexible conduit or hose is used to compensate for relative movement of the seal housing and the floating structure because the floating structure moves independent of the seal housing. The drilling fluid is pumped from the floating structure into an annulus of the riser, allowing the formation of a mud cap downhole in the riser, or allowing reverse circulation of the drilling fluid down the riser, returning up the rotatable tubular to the floating structure.